



6869770

UVMO:003US
U.S. Serial No. 09/273,164
"Compositions and Methods for Early Pregnancy Diagnosis"
Inventors: Roberts et al.
Replacement Sheet

Consensus	MKWLVLGLV	AFSECIKIP	LR..KTMR.T	LS.KN.LNNF	LKE.AYRLSQ	IS.RGSNLT-	60 (2)
						▼ (1)	
boPAG 8	.....	.L.....	.TKM...QEA	IRE,QL,ED,	.D.QPHS...	H.DPDKKFS,	59
boPAG 2	.....	.L.....IL.	.KMM...L.E.	.RE..L....	.E.Q.....K	N--D.KI..	56
boPAG12	.....	.L.....IL.	.KM...L.E.	.RE..L....	.E.R.....K	K--D.KI..	56
boPAG11	.....F....	.....IML	.TKT....EI	WRE.KL..S.	.E.Q.N.M.D	D.ASDPK.S,	59
boPAG 9	...I.....	.....	.QV.....K.	.G..M.K..	..HP.....	..F.....	59
boPAG10	.....G....	.L...M.I..	.QM.....E.	.RERHL.T..	SE.HP.N...	KAANDG.IIY	60
boPAG 4	.....	.....	.RV...TK.	.G..M....	V..H.....	..F.....	59
boPAG 6	.....	.....	.RV.....NA	I.G..T...I	..H....P.	..F.....	59
boPAG 1	.....	.....	.RL.....NV	V.G..M....	..H..S...	..F.....	59
boPAG 3	.DD.....	.....	.RV.....N.	V.G..I...I	..HV.....	..F.....	59
boPAG 5	.....L TS.....IL.	.....	.TKV....K.	.E..M....	..Q.....	..S....I..	59
boPAG 7	.....	.....	.RV.....K.	.G..M....	..DP.....H	..F.....	59
Consensus	.HPLRN1.D.	.YVGNITGT	PPQEFQWFD	TGSSDLWVPS	I.C.S.AC.T	H.RFRH..SS	120 (62)
boPAG 8	S.Q.K.FQNA	V.F.T.....	.....N...	.....	VD.Q.PS.SK	.K...DPQK.T	119
boPAG 2	I.....YL.T	A.....	.....R...	..AN....C	.T.T.P..Y.	.KT.NPQN..	116
boPAG12	I...K.YL.M	A.....	.....R...	..A.....	.S.V.P..Y.	.KT.NLHN..	116
boPAG11	T.....AL.M	A.....	.....K.R...	.....	.K.I.P..H.	.IT.D.HK..	119
boPAG 9	I.....MNL	V.....	.....	.....	FCTM-P..SA	PVW..QLQ..	118
boPAG10	H....SYK.F	S.I...N...	.....L..	..S.....	.Y.Q.SS.YK	.NS.VPCN..	120
boPAG 4	I.....R.F	?.....	.....I..	..E.....	.F.N.ST.SK	.D....LE..	119
boPAG 6	-.....R.L	F.....	.....I..	.....A.	.F.N.SS.AA	V.....HQ..	118
boPAG 1	T.....K.L	V.M.....	.....	..A.....	DF.T.P..S.	V.....LQ..	119
boPAG 3	T.....K.L	I.....	.....	..F.....	DF.T.R..S.	V.....LQ..	119
boPAG 5	I.....M.M	V...K....	.....	..E.....	VF.P.S..S.	I....LE..	119
boPAG 7	I.....R.I	F.....	.....I..	.....	.D.N.TS.A.	V.....LQ..	119

FIG. 1A



Consensus	TFR..INKTF.	I..YGSG..MKG	.L..DTVRIG	.LVSTDQPF6	LS..EE-..GF.	...-..DGVLG	180 (120)
boPAG 8	..QPL.QKIE	LV....T...	V.GS..IQ..	N..IVN..I..	..QNGSS.VL	EQVPY..I..	179
boPAG 2	S..EVGSPIT	.F....IIQ.	F.GS.....	N...PE.S..	..L...Y..D	SLP.F..I..	174
boPAG12	S.GQ.HQPI5	.S..P..IIQ.	F.GS.....	N...LK.S..	..Q...Y..D	GAP.F.....	174
boPAG11	...L.RRP.H	.L....M.N.	V.AY.....	K.....	..LQQ.F..D	NAP.F.....	177
boPAG 9	..QP.....T	.T....S...	F.AY.....	D.....	..VW..Y..LE	GRN.Y.....	176
boPAG10	..KA...I.N	TN..TATSI..	Y.VY.....	N...VA....	..LK..F..D	DVP.F..I..	178
boPAG 4	...LSRR..S	.T....RIEA	LWVH.....	D.....Q..	.CL...S..E	GMR.F.....	177
boPAG 6	...P.....R	.T....R...	VVH.....	D.....	.CLKD.S..K	GIP.F..I..	176
boPAG 1	...L.....R	.T....R...	VVH.....	N.....	..I...Y..E	GRI.Y.....	177
boPAG 3	...L.....R	.T....R...	VVAH.....	D.....	.V...Y..E	GRAYY.....	178
boPAG 5	.SGL.Q...S	.T....ST..	F.AY.....	D.L...E...	.M...H..E	DLPF.....	177
boPAG 7	...P.....R	.I....R.N.	VIAY.....	D.....	.V...Y..A	HKRF...I..	177
Consensus	L.YP..S..G	APIFDNLKN	QGAISEPVFA	FLYS....EG	SVWMFGGVDH	.YYKGELNW.	240 (180)
boPAG 8	.A..SLAIQ.	TT.V.....	REV.....	...SRPENI	.T.....	T.H..K.Q.I	239
boPAG 2	.AF.AMGIED	T.....WS	H..F.....	...NTNKP..	.....	R.....I	234
boPAG12	.A..SI.IK.	I.....WS	...F.....	...NTCQP..	.....	R.....I	234
boPAG11	.S..SLAVP.	T.....K..Q	...I.....	...TRKEN.	..L.L.....	S.H..K...I	237
boPAG 9	.N..NI.FS.	.....	.....	...KNKQ..	.....	Q.....I	236
boPAG10	.G..RTIT.	.N.....WK	.V.....	...SQKEN.	.....NR	A.....V	238
boPAG 4	.S.TNI..PS.	...YK...	E.....	...KDER..	.....A..	R.....I	237
boPAG 6	.S..NKTFS.	.F....K...	E.....	...KDKQ..	.....	R.....V	236
boPAG 1	.N..NI.FS.	...K...	.R.....	...KDER..	.....	R..E.....V	237
boPAG 3	.N..NI.FS.	.....	.....	IL..KDEQ..	.....	R..E.....V	238
boPAG 5	.N..DM.FIT	T.....	...F.....	...GKVK--.	.....	T.....V	235
boPAG 7	.N.WNL.WSK	.M....K...	E.....	...NI----	-----	-----	213

FIG. 1B



Consensus	P..Q.G.W..	MDRISM.R.	VIACS.GC.A	LVDIGTS.I.	GP.RLV.NI.	KLI.A.P-.G	300 (239)
boPAG 8	.VT.ARF.QV	A.SSMT.NGN	.VG..Q..Q.	V.....LLV	..TH..TD.L	...NPN,ILN	299
boPAG 2	.VS.TSH.QI	S.NN...NGT	.T...C..E.	.L.....M.Y	..TK..T..H	..MN.RL.EN	293
boPAG12	.VS.TRY.QI	S.N...NGN	.T...R..Q.	.L.....M.H	..T..IT..H	..MN.RH.Q.	293
boPAG11	.VS.TKS.LI	TV.....NGR	.G.EH..E.	.....L.H	..A.P.T..Q	.F.H.M..Y.	296
boPAG 9	.LIEA.E.RV	H.....K.T	.....D..E.	..H.....H.E	..G...N..H	R..RTR..FD	295
boPAG10	.VS.V.S.HI	NI.S...NGT	V..KR..Q.	SWIR.-RLSA	W.K.I.SK.Q	...H.R..ID	296
boPAG 4	.LMKA.D.SV	H.....K.K	.....G..K.	.....S.D.V	..ST..N..W	...G.T..Q.	296
boPAG 6	.LI.V.D.FV	H...TT.K.K	.....D..K.	.....D.V	..ST..N..W	...R.R..L.	295
boPAG 1	.LI.A.D.SV	H.....IE.K	I...D..K.	.....D.V	..R...N..H	R..G.I..R.	296
boPAG 3	.LIEA.D.II	H.....K.K	I...GS.E	I.....A.E	..RK..NK.H	...G.R..RH	297
boPAG 5	.LI.A.E.SL	H.....K.K	.....G..E	FY.....L.L	..R...N..Q	...G.T..Q.	294
boPAG 7	-----	-----T.N.E	.....E..A.	.....S.N.Q	..G.ID..Q	RI.G.T..R.	257
Consensus	SE..VSC.AV	..LPSIIIFTI	NGI.YPVP..	AYI.KDSRG.	C...F.....	---S..ET	360 (295)
boPAG 8	D.QML..D.I	NS..TLLL..	...V....PD	Y..QRF.ERI	.FIS.QGGTE	ILKNLGTS..	359
boPAG 2	..YV...D..	KT..PV..N.	...D..LRPQ	...I.IQN-S	.RSV.QGGTE	...N..SLN.	348
boPAG12	..YV...D..	KT..PV..N.	...D..L.PQ	...T.AQN-F	.LSI.HGGTE	...T..SP..	348
boPAG11	..YM.L.PVI	SI..PV....	...D.S..RE	...Q.I.NSL	.LST.HGD-D	...T.---DQ	348
boPAG 9	.KHY...F.T	KY...T.I.	...K..MTAR	...F.....R	.YSA.KENTV	...R.TSR..	351
boPAG10	R.HV...Q.I	GT..PAV...	...D....AQ	...QSL.G-Y	.FSN.LVRPQ	...RVNES..	352
boPAG 4	..HY...S..	NS.....	KSNW.R..GQ	...L.....R	.FTA.KGHQ	...S..ST.M	352
boPAG 6	PQYF...S..	NT.....	...N.RL.AR	...H.....R	.YTA.KEHRF	...S..PI..	351
boPAG 1	..HY.P.SE.	NT....V...	...N....GR	...L..D..R	.YTT.QENRV	...S..ST..	352
boPAG 3	.KYYI..S..	NT.....	...N..C.GR	..VL.....R	.YSM.QENKV	...S..ST..	353
boPAG 5	..HYI..F..	IS.....	...NI...AR	...H.....H	.YPT.KENTV	...ST..-I..	350
boPAG 7	.KYY...S..	NI.....	..VN....PR	...L.....H	.YTT.KEKRV	...RR..-I.S	313

FIG. 1C



388 (323)

Consensus	WILGDFLRL	YFSVDRGND	RIGLA,AV
boPAG 8	.....	.....Y.....N	.....P.A
boPAG 2	.....I...Q	.....K.R	.....P..
boPAG12	.....G...Q	.....R..	S.....-Q.
boPAG11	.....	.....Y.....N	.....P..
boPAG 9	.....A...R	.....	.....R..
boPAG10	.....	.....N	.....P..
boPAG 4	.....	.....RK.	.....TK.
boPAG 6L.....RR..
boPAG 1Y.....R..
boPAG 3VR..
boPAG 5QV-
boPAG 7V..E.....RR.

FIG. 1D

387
376
375
376
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379
380
381
377
341



↓ (1)

Consensus	MKWLVLGLV AFSECIVKIP LRRVKTMRKT LSGKNMLNMF LKEHPYRLSQ ISFR.SNLT I 60 (3)
OVPA G 4	.....F.....DV.....P.....G...I.. 60
OVPA G 7	.....F.V.....N.....V.....Y.....P.....D...V.. 60
OVPA G 3	.....F.....V.....L.....N.I...V.....Y.....P.....D...V.. 60
OVPA G 6	.....SI.....E.....A.....G..... 60
OVPA G 1	.....N.....K...S.....A..... 60
OVPA G 5	SV.....RV.....E...MK.NV.QE...NE.SL.....KY....A.. N.T.N.KMAF 60
OVPA G 9	.....M.....N P.....M.....A.....GL...- 59
OVPA G 2	.....W...L.....IM...TKT.....EI...RE..L....E.QAN.M.D D.ASDPK.ST 60
OVPA G 8	.....A...I.....SN..A.....K.....G....T 60
Consensus	HPLRN..D... YVGNITIGTP PQEFQVWFDT GSSDLWVPS. FC.S.T---C S.H.RFRH.Q 120 (60)
OVPA G 4	.....IR.TF.....L.....V.....I.V....L.. 117
OVPA G 7	L...MK.IF.....P.....S T.....WN.S.....TLV...K.R. 117
OVPA G 3	L...MK.IF.....A.....I...N.S.....TRV....R. 117
OVPA G 6	.....TK.LV.....S.....D...AIEA....L.T....L. 117
OVPA G 1	.....IM.ML.....L.....I...N.L.P.KRP..KQDK.K.H. 120
OVPA G 5	V.M..FL.LA...P.M...RG GEQ.R.....T.PA....YS.IT.KYWE 117
OVPA G 9	...S.YI.ML..T.....K...I...N.....T.PA....TGA...YR. 116
OVPA G 2AL.MA.....V.....K.R.....I...K.I.PA....YT.IT.D.HK 117
OVPA G 8	...M.IW.LL..L.....L...R.....L...N.S.....AK.VM...RL 117

FIG. 2A



UVM0:003US
U.S. Serial No. 09/273,164

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Replacement Sheet

Consensus	SSTFR.TNKT	F.I.YG.G.M	KGVAHDTV	IGDLVSTDQP	FGLS..E.GF	...PFDGVLG	180 (120)
ovPAG 4	....T....	.W.T..A.T.	.....	.....I...	....MA.Y.	HGRR.....	177
ovPAG 7	....T....	.W.T..A.T.	.....	.....I...	....MA.Y.	MDRR...I..	177
ovPAG 3	....LA...	.G.M..A.K.	...V....	.....	....VV.S.	EHRQ.....	177
ovPAG 6	....P..R.	.S.T..C.TV	...V....	.....	....TA.HVS	RCT.....	177
ovPAG 1	....F..D.	.R.YF.S.T.	R.F.....	.....	...IFL.SWL	D-I.....I..	179
ovPAG 5	...Y.H.T.P	.E.A..S.RI	..HL.Y..IQ	..N.....	....LV.Y.	NGL.....I..	177
ovPAG 9	....L..R.	.C.T..S.GL	..I.....	..N.....	...TLK.Y.	ENI.....	176
ovPAG 2	....L.RRP	.R.L..S.M.	N..L.Y....	..N.....	....LQGF.	DWA.....	177
ovPAG 8	....Y.L....	.M.F.RV.KI	E...VR....	.....A..T	....IA.T.	ENTTL...I..	177
Consensus	LNYP..S..G	.IPIFDKLN	EGAISEPVFA	FYLSKD.QEG	SVVMFEGVDH	.YYKGELNV	240 (180)
ovPAG 4	....RQ.CCR	PT.....	Q.....	.....E...	.....	R.....	237
ovPAG 7	....RQ.CSK	TKW.....	S Q.....	.....E...	.....	T.....SL	237
ovPAG 3	....NL.FSK	T.....	.....	.....E...	.....	S.....K....	237
ovPAG 6	....SI.FWS	T.....	.....	.....G...	.....	R.....	237
ovPAG 1	....KI.FS.	A.....	...F.....	...N..K...	.....	R.....	239
ovPAG 5	....N..IL.	A.....N..K	Q.....I..	....GTVN.	..L.L....K	A.....I	236
ovPAG 9	....NI.FS.	AV.....	...L.....	..F...E...	.....	R..E.....	236
ovPAG 2	.S..SLAVP.	T.....Q	Q.....I..	....TNKEN.	..L.L....	S.H..K...I	237
ovPAG 8	.S..NT.CF.	A.....	.....	...N-----	-----	-----	212

FIG. 2B



Consensus	PL...AGDW.I	VDRISM.R.	VIACS.GC.A	LDIG.S.I.	GP.RLVDNIQ	KLIGA.P.G.	300 (240)
OVPAG 4	..VK.D..T.	Q.....R.E	.....D..D.	..L...A.F.H	..G...I.D..	.....SE.RDL	297
OVPAG 7	..VK.D..S.	H.....R.E	.....D..D.	..L...A.F.H	..G...I.D..	.....SEQRDF	297
OVPAG 3	..IK....SV	R..S.T.K.E	.....D..R.	.....S.H.Q	..G...I..V.	.....TM.Q.S	297
OVPAG 6	..IP..N.MV	HM....YIE.N	.....A..K.	.....AAF.E	..KSG...M.	..F...R.R.S	297
OVPAG 1	..IHP.E.S.	PL.....R.K	.....G..E.	..G..T..L.L	..RTV.E...	..H...TQQCF	299
OVPAG 5	..IRV...R.	R..H...KGK	L.G.N.G.E.	.....P..L.N	..T...T...	R....M.L.P	296
OVPAG 9	..TK....IV	RL....IG.K	.....GD.E.	.....TAF.G	..RK..KK..	.....RRR.N	296
OVPAG 2	..VSGTKS.L.	T.....NGK	..G.EH..E.	.....T..L.H	..AGP.T...	..F.H.V.YDS	297
OVPAG 8	-----	TMK,-----E	.....D..R.	.....S.H.Q	..G.....V.	..H..TM.Q.S	258
Consensus	KHYVSCSAVN	TLPSIIIFTIN	GINYPVPAGA	YILK.S.G.C	YT.F...RVR	.STE.WVLGD	360 (300)
OVPAG 4	...I.....	.....	.....	.....G.T.H.	..A.RAK...	T...S.....	357
OVPAG 7	...I.....	.....	.....	.....G.T.H.	..A.RAK...	T...S.....	357
OVPAG 3	M...P.....	.....	.....	.....GFT.H.	..A.RAK...	T...S.....	357
OVPAG 6	..Y..P..V..	.....R..	S.....GR.	.....NHR.R.	..T.KENQWS	P...I.I...	357
OVPAG 1	EYF.....Y	A....V....	.....P..	..LV.D.R.Q.	..SP.QVN.AN	P.A.N.I...	359
OVPAG 5	.....TI.	I.....	.....TL....	.....T.Q.G.	F.T.KGA..F	KHR.T.....	356
OVPAG 9	-----	-----	-----	----DDA.R.	S.T.QEN...	L...S.L..N	323
OVPAG 2	EYM...PVIS	I..PV.....	S.D.S...E.	..Q.I.NSL.	LSS.HGDN--	--DK.I...	353
OVPAG 8	M...P.....	.....	.....GR.	.....DFR.R.	..N.KKIA.	TF..Y....E	318

FIG. 2C



383 (323)

380
380
380
380
382
379
346
376
341

Consensus	VFLRLYFSVF	DRGNDRIGLA	PAV
ovPAG 4	.....	.....	..M
ovPAG 7	.....	.....	..M
ovPAG 3	.....	..H.....	R.G
ovPAG 6	.....	..H.....	R..
ovPAG 1	....R.....	.....	R..
ovPAG 5	I.....Y ..	..EHN..A..	Q.R
ovPAG 9	....V.L....	.....	...
ovPAG 2	.....Y ..	..N.....	...
ovPAG 8	P.....	.....	...

FIG. 2D



boPAG	2	4	5	6	7	8	9	10	11	12
Hybrid (d25)	4		1	1	1	5	1	1	1	
Immuno (d25)		19								
RT-PCR (d19)	9					11	3		3	6

FIG. 3



BoPAG:	1	2	3	4	5	6	7	8	9	10	11	12
1	100 100											
2	73 57	100 100										
3	91 86	74 58	100 100									
4	88 76	73 55	87 73	100 100								
5	86 75	60 61	86 74	85 76	100 100							
6	89 80	73 57	88 78	89 76	84 70	100 100						
7	87 79	73 56	87 78	86 71	85 72	89 77	100 100					
8	68 53	68 55	67 51	67 49	70 54	69 53	71 53	100 100				
9	87 77	74 59	88 78	85 68	85 74	87 74	86 71	68 53	100 100			
10	70 56	72 50	69 55	68 53	71 58	70 57	68 53	71 55	69 57	100 100		
11	74 59	77 62	73 58	73 56	76 62	73 59	75 59	72 56	73 57	72 57	100 100	
12	75 61	90 83	75 60	74 58	77 63	75 59	74 58	70 56	75 60	73 60	79 64	100 100

FIG. 4

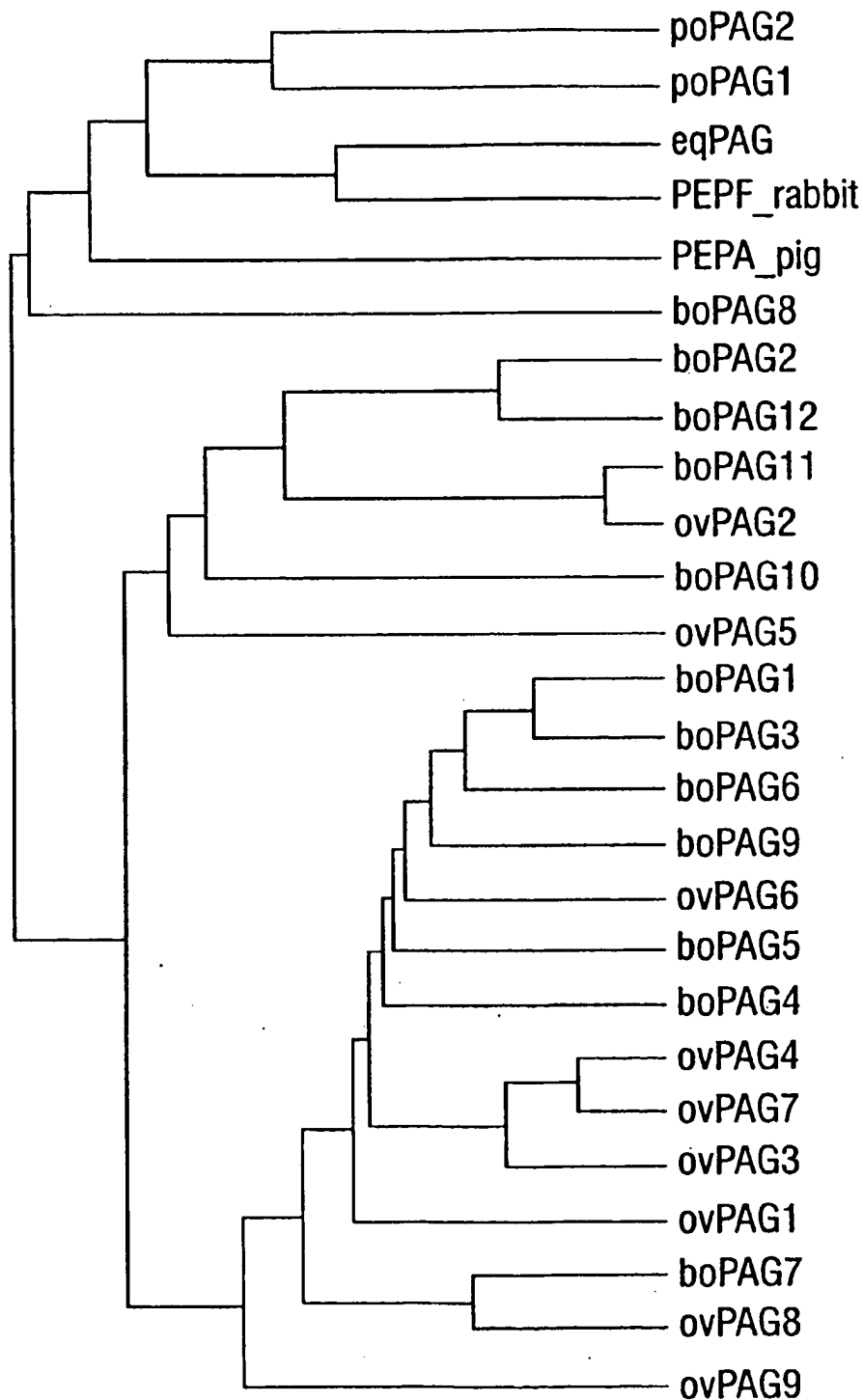


FIG. 5

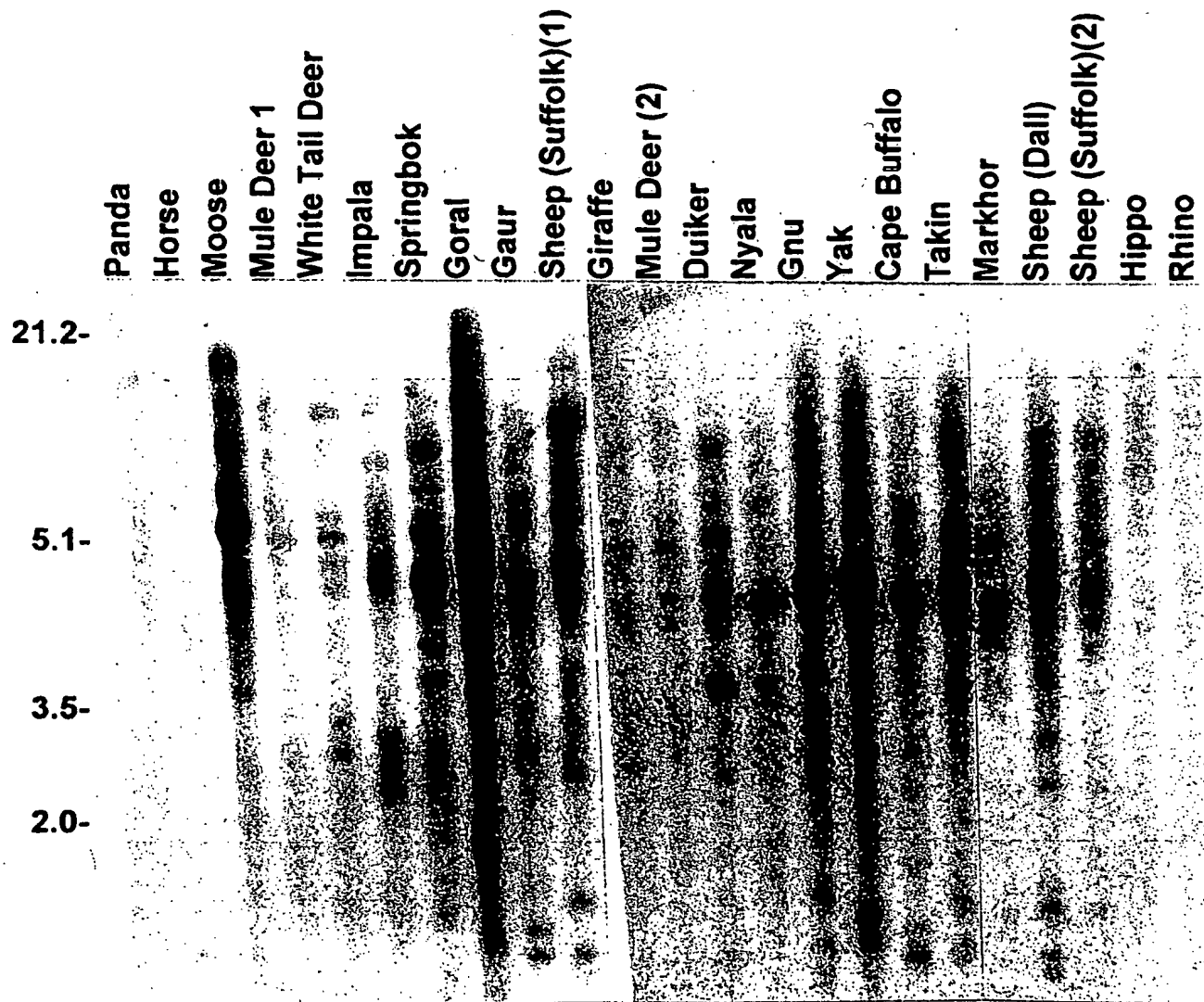


FIG. 6